

**REFERENCE NUMERALS**

Chemical vapor deposition system	100
Chamber body	102
Gas source	104
Walls	106
Bottom	108
Lid	110
Process volume	112
Pumping ring	114
Exhaust port	116
Showerhead	118
Interior side	120
Perimeter mounting ring pg 5	122
Dish-shaped center section	124
Mounting holes	126
Mounting screw	128
Mating hole	130
Perforated area	132
Mixing block	134
Blocker plate	136
Substrate support assembly	138
Substrate	140
Elevator shaft	142
Actuator	144
Bellows	146
Sleeve	150
Aperture	152
Guard ring	162
Step	164
Outer surface	202
Outer circumference	210
Inner perimeter	220
v-shaped sealing lip	240
First end	304
Outer circumference	310
Sleeve	350
Extending lip	352
Guard ring	362
Step	364
Guard ring	400
Guard ring	500
First ends	502
Second ends	504
Small gap	506

Guard ring assembly	600
Sleeve	602
Guard ring	604
Outer surface	606
Shaft	608
First end	610
Step	612
Retaining lip	614
Portion	616
Inner perimeter	620
First surface	622
Second surface	624
First ends	701a
First end	701b
First flange	702
Second ends	703a
Second ends	703b
Second flange	704
Base portion	706
Channel	708
Portion	714
Small recess	716
Chiseled contact point	720
Outer edge	722
Guard ring	800
Outer circumference	802
Inner perimeter	804
Round portion	805
Flat portion	806
Flat surface	880
Shaft	882
Guard ring	900
First component	902
Second component	904
Outer circumference	906
Inner perimeter	908
End	910a
End	910b
Arcuate outer surface	912
Flat inner surface	914
Guard ring	1000
Ring	1002
Insert	1004
Outer circumference	1006
Inner perimeter	1008

Arced surface	1010
Flat surface	1012